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STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER
LERNER, MARTIN

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 December 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>59, 61 to 66, 68 to 73, and 75 to 83</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>59, 61 to 66, 68 to 73, and 75 to 83</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 59, 61 to 66, 68 to 73, and 75 to 83 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Independent claims 59, 66, 73, and 81 to 83 set forth the limitation of an upload module, uploading, uploading means, and a download module for uploading/downloading "an additional control signal set for application to a device control signal set" at a local device, which limitation involves new matter. Applicants' Specification as originally filed does not disclose uploading or downloading "an additional control signal set" or "a device control signal set". United States Patent Application Publication US 2002/0072918, corresponding to the current Specification, at ¶[0070], discloses only that, in one embodiment, keywords for a grammar can be downloaded from a remote system, so that keywords already existing in a local device can be replaced, supplemented, or updated as desired, and at ¶[0071], that

prerecorded messages can be downloaded. However, keywords or pre-recorded messages are not an additional control signal set or a device control signal set. Keywords only represent words for a grammar that a speech recognizer can act upon, but control signals represent the electronic sequences that are transmitted once the keywords are recognized. Similarly, pre-recorded messages only represent speech output, which is something different than the electronic sequences of control signals to control a primary functionality component. Nor is there any disclosure of "a set" of control signals or "a set" of device control signals. The Specification, at ¶[0073], does say that data received from a remote system can include control signals, but these control signals are not disclosed to be uploaded or downloaded to a local device, but are only disclosed to control a primary functionality component from a remote location. Applicants' Specification, as originally filed, discloses downloading keywords for a grammar at ¶[0070], downloading pre-recorded messages at ¶[0071], and, more generally, downloading data at ¶[0014], but not expressly say that downloading includes control signals, a control signal set, or a device control signal set. It is maintained that one having ordinary skill in the art would understand that downloading keywords for a grammar or pre-recorded messages is something different than downloading a control signal set. Thus, the limitation involves new matter.

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 59, 61 to 66, 68 to 73, and 75 to 83 are rejected under 35 U.S.C. 112,
second paragraph, as being indefinite for failing to particularly point out and distinctly
claim the subject matter which applicant regards as the invention.

Independent claims 59, 66, 73, and 81 to 83 set forth the limitation of "a
communication module", which is indefinite because there is no clear basis of
correspondence between that term and what is disclosed by the Specification.
Presumably, Applicants intend that the disclosed remote system represents "a
communication module", but the Specification does not employ the term "a
communication module" to describe the remote system. Thus, it is unclear whether "a
communication module" should be read to include transceiver 32 of local device 14,
transceiver 50 of remote system 12, WAN connector 58, LAN connector 52, or
telecommunications network 16. Conventionally, one skilled in the art would
understand that "a communication module" is something performing a communication
function rather than a remote system, a local device, or a server. Thus, the term "a
communication module" is indefinite because it is unclear what is intended to be
represented by it from the Specification, and because it is an inapt description of a
remote system.

Moreover, independent claim 82 sets forth the limitation of "a communication
module" that receives data from "a remote system", which is indefinite, too. Now,
however, Applicants appear to intend "a communication module" to refer to the local
device. Again, though, there isn't any clear basis of correspondence between "a
communication module" and what is disclosed by the Specification. Thus, "a

communication module" is indefinite because it is unclear what is being referred to,

given what is disclosed by Applicants' Specification.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 59, 61 to 66, 68 to 73, and 75 to 83 are rejected under 35 U.S.C. 103(a)

as being unpatentable over *Houser et al.* in view of *Hughes et al.*

        Concerning independent claims 59 and 81 to 83, *Houser et al.* discloses an

information system and terminal or subscriber unit ("a local device") having a speech

interface, comprising:

        "a communication module operable to receive input from the local device and to

transmit data to the local device to enable the local device to provide the data in an

output response" – head-end installation 125 ("a communication module") serves as a

communication hub, interfacing to various information providers, and connecting them

on a conditional basis to subscriber locations 120-1, . . . , 120-n ("a local device")

(column 9, lines 28 to 33: Figure 2B); head-end installation 125 includes an RF

processor 152 for receiving reverse path data communication from subscriber locations

120-1, . . . , 120-n ("to receive input from the local device"); the subscriber request is

forwarded from RF processor 152 to an information request processor 156 which

accesses database 154 for requested information, and forwards the requested information to the requesting subscriber ("to transmit data to the local device") (column 11, lines 32 to 50: Figures 2B and 2C);

"and wherein the communication module is further operable to transmit a control signal to the local device for directing an action in a primary functionality component of the local device" – each subscriber terminal 16 may be coupled to one or more devices 162-1, . . . , 162-n ("a primary functionality component of the local device"), which may include televisions, stereo receivers, video cassette recorders (VCRs), compact disc (CD) players, computers, and the like (column 12, lines 4 to 19: Figure 2C); information distribution center 12 ("the communication module") supplies or broadcasts this information to terminal unit 16, where the information includes audio video, text, and electronic program guides (column 5, lines 39 to 50: Figure 1); thus, information distribution center 12 supplies "a control signal" to subscriber units to direct a display of information for an electronic program guide or audio/video programming on a television, VCR, or computer;

"a processing module coupled to the communication module and operable to perform speech recognition on the received input" – terminal unit 16 includes a processor ("a processing module") for executing a speech recognition algorithm for comparing vocabulary data and spoken command data to recognize commands for controlling device 18 or commands for accessing information transmitted by information distribution center 12 (column 5, lines 60 to 67: Figure 1); terminal unit 16 including speech recognition processor is "coupled to" head-end installation 125 ("the

communication module") through distribution network 138 (column 10, line 65 to column 11, line 6: Figures 2B and 2C);

"an upload module for uploading, to the local device, an additional control signal set for application to a device control signal set at the local device" – in order to provide spoken control of VCR 162-1 and television 162-2, as well as spoken access to EPG data transmitted from head-end installation 125, second vocabulary data ("an additional control signal set") may be downloaded from head-end installation 125; second vocabulary data permits basic television control, as well as control of VCR 162-1 and access to EPG data, permitting a user to use spoken commands to implement basic television control, EPG control, VCR control, and event programming (column 23, lines 38 to 50: Figures 2B and 2C); downloading from a head-end installation to a subscriber unit is equivalent to uploading to a local device.

Concerning independent claims 59 and 81 to 83, *Houser et al.* omits the limitation of "wherein the communication module is further operable to detect an additional user input from the local device and in response, to cause the local device to cease providing the output response to the user". However, it is known in the prior art of interactive voice response (IVR) systems for barge-in detectors to detect spoken input from a user to disable an output prompt and begin speech recognition. *Hughes et al.* teaches a voice processing system having a distributed architecture between a caller calling through a telephone network 110 and a server 300 ("the communication module") supporting speech recognition software 320. (Column 4, Lines 34 to 47;

Column 5, Lines 37 to 50: Figure 1) Specifically, for barge-in, an application can specify

that an prompt output should be terminated in response to voice input. (Column 9,

Lines 29 to 45: Figure 4) Barge-in, or cut-through, is a facility that is particularly useful

for a voice processing application such as voice mail, where the caller is likely to

encounter the same sequence of prompts repeatedly, and accordingly may be able to

select a desired option without needing to listen to all of the prompt. (Column 8, Line 59

to Column 9, Line 2) A voice input from a caller to barge-in during a prompt is "an

additional user input" causing the prompt to cease. It would have been obvious to one

having ordinary skill in the art to provide a barge-in application that causes an output

prompt to cease as taught by *Hughes et al.* in an information system having a speech

interface of *Houser et al.* for a purpose of selecting a desired option without needing to

listen to all of a prompt.

Concerning independent claims 66 and 73, *Houser et al.* discloses an information

method and computer program product having a speech interface, comprising:

"receiving an audio input from a local device, the audio input based on speech

input" – microphone 320 receives a sound signal, and transmits a digitized sound signal

to subscriber terminal 160 ("a local device") and speech recognition software compares

spoken sound data with phonemic or template vocabulary data (column 15, line 64 to

column 16, line 24: Figure 5);

"performing speech recognition on the received audio input" – terminal unit 16

includes a processor for executing a speech recognition algorithm for comparing

vocabulary data and spoken command data to recognize commands for controlling

device 18 or commands for accessing information transmitted by information distribution

center 12 (column 5, lines 60 to 67: Figure 1);

"transmitting data to the local device to enable the local device to provide the

data in an output response to the user" – head-end installation 125 serves as a

communication hub, interfacing to various information providers, and connecting them

on a conditional basis to subscriber locations 120-1, . . . , 120-n ("the local device")

(column 9, lines 28 to 33: Figure 2B); head-end installation 125 includes an RF

processor 152 for receiving reverse path data communication from subscriber locations

120-1, . . . , 120-n; the subscriber request is forwarded from RF processor 152 to an

information request processor 156 which accesses database 154 for requested

information, and forwards the requested information to the requesting subscriber

("transmitting data to the local device") (column 11, lines 32 to 50: Figures 2B and 2C);

"transmitting a control signal to the local device for directing an action in a

primary functionality component of the local device" – each subscriber terminal 16 may

be coupled to one or more devices 162-1, . . . , 162-n ("a primary functionality

component of the local device"), which may include televisions, stereo receivers, video

cassette recorders (VCRs), compact disc (CD) players, computers, and the like (column

12, lines 4 to 19: Figure 2C); information distribution center 12 supplies or broadcasts

this information to terminal unit 16, where the information includes audio video, text, and

electronic program guides (column 5, lines 39 to 50: Figure 1); thus, information

distribution center 12 supplies "a control signal" to subscriber units to direct a display of

information for an electronic program guide or audio/video programming on television,

VCR, or computer;

"uploading to the local device, an additional control signal set for application to a

device control signal set at the local device" – in order to provide spoken control of VCR

162-1 and television 162-2, as well as spoken access to EPG data transmitted from

head-end installation 125, second vocabulary data ("an additional control signal set")

may be downloaded from head-end installation 125; second vocabulary data permits

basic television control, as well as control of VCR 162-1 and access to EPG data,

permitting a user to use spoken commands to implement basic television control, EPG

control, VCR control, and event programming (column 23, lines 38 to 50: Figures 2B

and 2C); downloading from a head-end installation to a subscriber unit is equivalent to

uploading to a local device.

Concerning independent claims 66 and 73, *Houser et al.* omits the limitations of

"detecting an additional audio user input from the local device" and "transmitting a signal

to the local device to cause the local device to cease providing the output response to

the user". However, it is known in the prior art of interactive voice response (IVR)

systems for barge-in detectors to detect spoken input from a user to disable an output

prompt and begin speech recognition. *Hughes et al.* teaches a voice processing system

having a distributed architecture between a caller calling through a telephone network

110 and a server 300 ("the communication module") supporting speech recognition

software 320. (Column 4, Lines 34 to 47; Column 5, Lines 37 to 50: Figure 1)

Specifically, for barge-in, an application can specify that an prompt output should be terminated in response to voice input. (Column 9, Lines 29 to 45: Figure 4) Barge-in, or cut-through, is a facility that is particularly useful for a voice processing application such as voice mail, where the caller is likely to encounter the same sequence of prompts repeatedly, and accordingly may be able to select a desired option without needing to listen to all of the prompt. (Column 8, Line 59 to Column 9, Line 2) A voice input from a caller to barge-in during a prompt is "an additional user input" causing the prompt to cease. It would have been obvious to one having ordinary skill in the art to provide a barge-in application that causes an output prompt to cease as taught by *Hughes et al.* in an information system having a speech interface of *Houser et al.* for a purpose of selecting a desired option without needing to listen to all of a prompt.

Concerning claims 61 to 63, 68 to 70, and 75 to 77, *Houser et al.* discloses information distribution system 12 supplies or broadcasts information to a terminal unit 16, where "information" includes, but is not limited to, analog video, analog audio, digital video, digital audio, text services, such as news articles, sports scores, stock market quotations, weather reports, electronic messages ("a text message"), electronic program guides, database information, and software including game programs (column 5, line 39 to column 6, Line 14: Figure 1).

Concerning claims 64, 71, and 78, *Hughes et al.* teaches that a caller is calling from a telephone ("the local device") (column 1, lines 8 to 25); implicitly, a caller's telephone is not capable of processing a caller's voice input by speech recognition.

Concerning claims 65, 72, and 79, *Houser et al.* discloses that information is
retrieved from an information distribution center 12 in response to commands from
terminal unit 16 for accessing information transmitted by information distribution center
12 (column 5, line 39 to column 6, line 14: Figure 1); additionally, electronic
programming guide (EPG) data is accessed from an information provider 114-3,
including television schedule information arranged by time and channel, and transmitted
to subscriber units (column 22, line 19 to 51: Figure 2C).

Concerning claim 80, *Houser et al.* discloses that electronic program guide
(EPG) information is provided by head-end installation 125 to subscribers, and includes
a television schedule that is arranged by time and channel; EPG information contains
data for programs of up to two weeks in advance; expanded EPG information is
downloaded from head-end installation to a subscriber (column 22, lines 19 to 35;
column 22, lines 48 to 63: Figures 2B and 2C); thus, downloaded EPG information
represents "a device control signal set" for selecting television programs that is
"replacing, supplementing, or updating" a signal set to provide a current and expanded
vocabulary to the subscriber.

Response to Arguments

7.   Applicants' arguments filed 04 December 2008 have been considered but are
moot in view of the new grounds of rejection, necessitated by amendment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Lerner/
Primary Examiner
Art Unit 2626
January 22, 2009